

# A descriptive study to assess the knowledge, attitude and practices regarding health hazards management against traffic pollution among traffic policemen working at selected districts of Punjab

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## ABSTRACT:

**Introduction and Aim-** Traffic police personnel are suffering from many health hazards like skin irritations, varicose veins, arthropathy, photosensitivity, lung diseases, certain cardiovascular diseases, cancers etc due to their nature of duty. The aim of study was to assess the knowledge, attitude and practices regarding health hazards management against traffic pollution among traffic policemen working at selected Districts of Punjab. **Methods-** A descriptive study was conducted in District Bathinda and sample size was 60 traffic policemen who were working at traffic intersections. Structured knowledge questionnaire, likert scale and observational practice checklist was used as tools for data collection. **Results-** The findings of the study revealed that most of the traffic policemen (75%) had average knowledge, 86.7% had favourable attitude and all traffic policemen had poor practices regarding health hazards management against traffic pollution. There was positive correlation between knowledge & practices and attitude & practices. Place of posting and attended any educational programme on traffic pollution and its health hazards had association with knowledge of traffic policemen and no association of attitude and practice with demographic variables. **Discussion-** It was concluded that traffic policemen had average knowledge, favourable attitude and poor practices regarding health hazards management against traffic pollution.

**KEYWORDS:** Knowledge, attitude, practices, traffic pollution, health hazards, traffic policemen

## INTRODUCTION

The Indian Police Service, is one of the three All India Services of the Government of India. In 1948, a year after India gained independence from Britain, the Indian Police was replaced by the Indian Police Services.<sup>1</sup> Highway Police and Traffic police in small towns come under the state police, but traffic police in the cities come Under the metropolitan police. The traffic police are responsible for maintaining the smooth flow of traffic and stooping offenders in the city or town, whilst the highway police are responsible for securing the highways and for catching speeding offenders.<sup>2</sup>

In order to study the health hazards of traffic pollution on human systems, like respiratory and hearing problems the section of the population considered most

suitable for study was the traffic policemen who are posted at various traffic junctions through which maximum number of vehicles pass.

Air, noise, heat, radiation etc are the main sites of environment pollution and this is more so in urban areas. Occupational environment too plays a major role on the health of the exposed. The health hazards get more severe when the duration of exposure increases. This fact is more important in situations as the personnel engaged in traffic duty. These personnel have to undergo physical and mental strain in an environment polluted by fumes, exhaust of vehicles, use of blowing horns, blow of dust in the air by a speeding vehicle etc. The personnel also pursue a near sedentary type of work as they only stand at one place for long hours or just walk a few meters, only when

necessity arises.<sup>3</sup>

Due to their nature of duty traffic police personnel are suffering from many health hazards like skin irritations, varicose veins, arthropathy, photosensitivity, lung diseases, certain cardiovascular diseases, cancers etc.<sup>4</sup>

#### OBJECTIVES

- To assess the knowledge, attitude and practices of traffic policemen regarding health hazards management against traffic pollution.
- To determine the relationship between the knowledge, attitude and practices regarding health hazards management against traffic pollution.

#### MATERIAL AND METHODS

A non experimental research approach was used for the present study as it is aimed to assess the knowledge, attitude and practices regarding health hazards management against traffic pollution among traffic policemen working at selected Districts of Punjab. A descriptive research design was considered appropriate for the present study to assess the knowledge, attitude and practices regarding health hazards management against traffic pollution among traffic policemen with demographic variables like age, educational status, place of posting, experience of service, no. of duty hours last week, monthly income (in rupees), have you ever attended any educational programme on traffic pollution and its health hazards, source of information about traffic pollution and its health hazards. Dependent variables of the study were knowledge, attitude and practices regarding health hazards management against traffic pollution among traffic policemen.

The study was conducted in district Bathinda, Punjab. The total traffic policemen in the district were 76. The target population of this study was the traffic policemen working in district Bathinda. 60 traffic policemen were selected as sample on the basis of convenience sampling technique from district Bathinda, Punjab who were fulfilling the inclusion criteria. For data collection tools were prepared after extensive review of literature and with the help of experts, having following sections: **Section A:** Description of Demographic Variables. **Section B: Structured Knowledge Questionnaire** was developed

to assess knowledge regarding health hazards management against traffic pollution. **Section C:** Likert Scale to assess attitude regarding health hazards management against traffic pollution. **Section D:** Observational practice check list was developed to identify health hazards management against traffic pollution.

#### RESULTS

Sample characteristics as per age majority 66.7% were in the age group of 41- 50 years and least were 6.7% in the age group of 51- 60 years. Distribution of subjects according to educational status, Majority of traffic policemen that is 65% were educated till secondary and least that is 3 5% were educated till postgraduate. As per place of posting, policemen 95% were posted in urban and 5% in rural. Majority of traffic policemen that is 75% were having less than 5 years of experience of service in traffic and least were 8.3% having more than 15 years. Majority of traffic policemen 88.3% were having more than 44 hours of duty last week and least 3.3% were having duty of 36 hours. One third of traffic policemen 38.3% were having monthly income of Rs.30,001-40,000. Among all traffic policemen 55% have never attended any educational programme on traffic pollution and its health hazards and 45% have attended any educational programme on traffic pollution and its health hazards. Majority of traffic policemen 75% had a source of information about traffic pollution and its health hazards from Mass media (Newspaper, Radio, Television, Magazine, Internet).

Table 1 depicts that the frequency and percentage distribution of traffic policemen in terms of levels of knowledge, attitude and practice score. The data reveals that most of the traffic policemen 75% had average knowledge, 10% had good knowledge and 15% had poor knowledge. It further depicts that majority of the traffic policemen i.e. 86.7% were favourable and the data further shows that 13.3% were moderately favourable regarding health hazards management against traffic pollution. Regarding practice it shows that 60(100%) traffic policemen had poor practices regarding health hazards management against traffic pollution.



**Table 1: level of knowledge, attitude and practice regarding health hazards management against traffic pollution**

	Range	Traffic policemen Frequency(f) Percentage (%)
<b>Level of Knowledge</b>		
Good	17-24	6(10.0)
Average	9-16	45(75.0)
Poor	0-8	9(15.0)
<b>Level of Attitude</b>		
Favourable	59-80	52.0 (86.7)
Moderately	38-58	8.0 (13.3)
Favourable	16-37	-
Unfavourable		
<b>Level of Practice</b>		
Good	5-8	-
Poor	0-4	6(100.0)

Table 2 depicts that the observational practice of traffic policemen regarding health hazards management against traffic pollution. The data presented in the table shows that majority of traffic policemen 36.7% using hand to protect from traffic air pollution and least 8.3% using fingers to prevent traffic noise pollution followed by 35% using handkerchief to cover mouth and nose, 16.7% used goggles to cover eyes regarding health hazards management against traffic pollution.

**Table 2: Health hazards management against traffic pollution by traffic policemen**

S. No.	Items	Frequency of Traffic Policemen Frequency (f) Percentage (%)
1	Antipollution mask is used	0
2	Handkerchief is used to cover mouth and nose	20(33.3%)
3	Using hand to protect from traffic air pollution	20(33.3%)
4	Goggles used to cover eyes	15(25.0%)
5	Reflective jacket used during duty time	0
6	Use of gloves to protect hands	0
7	Earplugs or earmuffs being used	0
8	Traffic policemen using fingers to prevent traffic noise pollution	5(8.3%)

**Table 3: Correlation between the knowledge and practice and attitude score of traffic policemen towards health hazards management against traffic pollution**

Group	Knowledge Score	Practice Score	Attitude Score	r
	Mean± SD	Mean ± SD	Mean ± SD	
Traffic Policemen	12.07±3.649	0.97±0.450	-	0.528
Traffic Policemen	-	0.97±0.450	63.53±4.180	0.478
Traffic Policemen	12.07±3.649	-	63.53±4.180	0.221

#### **Association of demographic variables and level of knowledge of traffic policemen regarding health hazards management against traffic pollution.**

Association of demographic variables and level of knowledge concluded that age, educational status, experience of service, no. of duty hours last week, monthly Income (in rupees), source of information about traffic pollution and its health hazards with level of knowledge of the traffic policemen were statistically non significant at 0.05 level of significance which implies that these variables had no impact on the level of knowledge score of traffic policemen. The place of posting and have you ever attended any educational programme on traffic pollution and its health hazards was significant at 0.05 level of significance.

#### **Association of demographic variables and level of attitude of traffic policemen regarding health hazards management against traffic pollution.**

Association of demographic variables and level of attitude concluded that age, educational status, place of posting, experience of service, no. of duty hours last week, monthly Income (in rupees), have you ever attended any educational programme on traffic pollution and its health hazards, source of information about traffic pollution and its health hazards with level

of attitude of the traffic policemen were statistically non significant at 0.05 level of significance which inferring that these variables had no impact on the level of attitude of traffic policemen.

#### **Association of demographic variables and level of practice of traffic policemen regarding health hazards management against traffic pollution**

As mean score is 0.97 so there is no association of demographic variables with practice score.

#### **DISCUSSION**

The Indian Police Service, is one of the three All India Services of the Government of India. In 1948, a year after India gained independence from Britain, the Indian Police was replaced by the Indian Police Services.<sup>1</sup> When work is associated with health hazards, it may cause occupational disease, be one of the multiple causes of other disease or may aggravate existing ill-health of non-occupational origin. In order to study the health hazards of traffic pollution on human systems, like respiratory and hearing problems the section of the population considered most suitable for study was the traffic policemen who are posted at various traffic junctions through which maximum number of vehicles pass.

**CONCLUSION:** The present study concluded that traffic policemen have average knowledge, favourable attitude and poor practices regarding health hazards management against traffic pollution.



**RECOMMENDATIONS:** On the basis of the findings of the study, following recommendations are made:

1. The comparative study can be done about health hazards management between two states in the country.
2. A study can be done to identify respiratory problems among traffic policemen due to traffic pollution.
3. An evaluative study can be done to determine the effectiveness of structured teaching programme on traffic pollution and health hazards.
4. A study can be done to identify morbidity rate due to traffic pollution among traffic policemen.

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